What is Claimed:

1. A shipping container comprising a tube and an end cap, the tube having a cylindrical body and an open end, the cylindrical body having a mounting opening formed therein adjacent to the open end, the end cap comprising a circular sidewall that is adapted to be received by the open end of the tube such that one of the circular sidewall and the cylindrical body is radially surrounded by the other of the circular sidewall and the cylindrical body, the circular sidewall including a projection that extends away from the circular sidewall and into the mounting opening so as to releasably secure the end cap to the tube.

2. The shipping container according to claim 1 wherein the circular sidewall of the end cap is adapted to be received by the open end of the tube such that the circular sidewall is radially surrounded by the cylindrical body of the tube.

3. The shipping container according to claim 2 wherein a plurality of mounting openings are formed in the cylindrical body adjacent to the open end and wherein the circular sidewall of the end cap includes a corresponding plurality of projections.

4. The shipping container according to claim 3 wherein the plurality of mounting openings are spaced an equal distance apart radially about the cylindrical body adjacent to the open end, and wherein the plurality of projections are spaced equal distance apart radially about the circular sidewall.

5. The shipping container according to claim 2 wherein the projection is formed on a deflectable tab portion of the circular sidewall.

6. The shipping container according to claim 3 wherein each of the plurality of projections is formed on a deflectable tab portion of the circular sidewall.

7. The shipping container according to claim 5 wherein the projection comprises a top edge portion that is arranged to contact against a top peripheral portion of the mounting opening and thereby prevent withdrawal of the end cap from the tube.

8. The shipping container according to claim 7 wherein the projection further comprises a bottom ramp portion arranged opposite the top edge portion for promoting inward deflection of the deflectable tab when the end cap is pressed into the open end of the tube.

9. The shipping container according to claim 8 wherein the projection further comprises a side ramp portion arranged between the top edge portion and the bottom ramp portion, the side ramp portion promoting inward deflection of the deflectable tab when the end cap is rotated relative to the tube when the projection is extending into the mounting opening.

10. The shipping container according to claim 2 wherein the end cap further comprises a peripheral rim portion that extends beyond the circular sidewall, the peripheral rim portion contacting a perimeter of the open end of the tube to limit the extent to which the end cap can be received within the open end of the tube.

11. The shipping container according to claim 2 wherein the end cap further comprises an end wall that extends between the circular sidewall.

12. The shipping container according to claim 11 wherein the end wall further comprises a handle portion for facilitating rotation of the end cap relative to the tube.

13. The shipping container according to claim 2 wherein the tube is formed of spirally wound strips of paper.

14. The shipping container according to claim 2 wherein the end cap is formed of plastic.

15. The shipping container according to claim 2 wherein the cylindrical body has an inner diameter of from about two inches to about seven inches.

16. The shipping container according to claim 2 wherein the cylindrical body has a wall thickness of from about 0.050 inches to about 0.250 inches.

17. The shipping container according to claim 1 wherein the circular sidewall of the end cap is adapted to be received by the open end of the tube such that the cylindrical body of the tube is radially surrounded by the circular sidewall of the end cap.

18. The shipping container according to claim 17 wherein a plurality of mounting openings are formed in the cylindrical body adjacent to the open end and wherein the circular sidewall of the end cap includes a corresponding plurality of projections.

19. The shipping container according to claim 17 wherein the plurality of mounting openings are spaced an equal distance apart radially about the cylindrical body adjacent to the open end, and wherein the plurality of projections are spaced equal distance apart radially about the circular sidewall.

20. The shipping container according to claim 17 wherein the projection is formed on a deflectable tab portion of the circular sidewall.

21. The shipping container according to claim 17 wherein each of the plurality of projections is formed on a deflectable tab portion of the circular sidewall.

22. The shipping container according to claim 20 wherein the projection comprises a top edge portion that is arranged to contact against a top peripheral portion of the mounting opening and thereby prevent withdrawal of the end cap from the tube.

23. The shipping container according to claim 22 wherein the projection further comprises a bottom ramp portion arranged opposite the top edge portion for promoting outward deflection of the deflectable tab when the end cap is pressed onto the open end of the tube.

24. The shipping container according to claim 23 wherein the projection further comprises a side ramp portion arranged between the top edge portion and the bottom ramp portion, the side ramp portion promoting outward deflection of the deflectable tab when the end cap is rotated relative to the tube when the projection is extending into the mounting opening.

25. The shipping container according to claim 17 wherein the end cap further comprises an end wall that extends between the circular sidewall.

26. The shipping container according to claim 25 wherein the end wall further comprises a handle portion for facilitating rotation of the end cap relative to the tube.

27. The shipping container according to claim 17 wherein the tube is formed of spirally wound strips of paper.

28. The shipping container according to claim 17 wherein the end cap is formed of plastic.

29. The shipping container according to claim 17 wherein the cylindrical body has an inner diameter of from about two inches to about seven inches.

30. The shipping container according to claim 17 wherein the cylindrical body has a wall thickness of from about 0.050 inches to about 0.250 inches.

31. A paper tube comprising a cylindrical body having at least one open end and a plurality of mounting openings formed in the cylindrical body adjacent to the open end.

32. The paper tube according to claim 31 wherein the plurality of mounting openings are spaced an equal distance apart radially about the cylindrical body adjacent to the open end.

33. An end cap for a paper tube having a plurality of mounting openings formed in a cylindrical body adjacent to an open end, the end cap comprising a circular sidewall having a plurality of projections that extend away from the circular sidewall,

34. A method of releasably securing an end cap to a tube, the method comprising:

providing a tube comprising a cylindrical body having at least one open end and a plurality of mounting openings formed therein adjacent to the open end;

providing an end cap comprising a circular sidewall having a plurality of projections that extend away from the circular sidewall, each projection being formed on a deflectable tab portion of the circular sidewall; and

pressing the end cap into the open end of the tube until the cylindrical body surrounds the circular sidewall and the plurality of projections extend into the plurality of mounting openings to releasably secure the end cap to the tube.

35. The method according to claim 34 wherein each projection further comprises a bottom ramp portion that is configured to promote inward deflection of the deflectable tab when the end cap is pressed into the open end of the tube.

36. The method according to claim 35 wherein each projection further comprises a top portion that is configured to contact against a top peripheral portion of the mounting opening and thereby prevent withdrawal of the end cap from the tube.

37. The method according to claim 36 wherein each projection further comprises a side ramp portion arranged between the top edge portion and the bottom ramp portion, the side ramp portion promoting inward deflection of the deflectable tab when the end cap is rotated relative to the tube when the projection is extending into the mounting opening.

38. The method according to claim 37 further comprising:

rotating the end cap relative to the tube until the projection is not received within the mounting opening; and

pulling the end cap from the tube.